

## II. RESEARCH PROJECT SUMMARIES



A. Research Projects Planned and in Progress

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## Continuing Eligibility

### Problem to be Studied

The purpose of this project is to measure the extent to which unemployment insurance claimants in New Jersey are exposed to the range of services provided by the New Jersey Job Service and to make a determination as to whether or not the claimant group is "harder to place in a job" than the nonclaimant group.

### Study Title (tentative)

Service to UI Claimants, 1976 - 1980.

### Hypothesis to be Tested

UI claimants are harder for the Job Service to place in a job than nonclaimants.

### Methodology

For the years 1976 - 1980 all data elements from the Employment Service Automated Reporting System (ESARS) and the Characteristics of the Insured Unemployed (ES-203) Reports which appear to have some direct linkage to the hypothesis will be extracted. A univariate analysis will be performed on each in order to first describe the two classes of individuals being examined and then to determine if the groups are similar or dissimilar. Significant service ratios will be computed to measure the extent of services provided each group.

Data available from an 18-month pilot study on the effects of monetary incentives on Job Service performance will be utilized to obtain relative placement duration and wage rates for claimants and nonclaimants placed during the period October 1, 1979 to December 31, 1980 to determine the effectiveness of the placement services provided.

If the two groups are found to have received unequal services or if the results of the placement services are dissimilar, a subjective analysis of the reasons for the differences will be undertaken.

### Expected Completion Date

The study should be completed by the end of calendar year 1981.

### Contact Person

Laurence H. Seidel  
N.J. Department of Labor and Industry  
Division of Planning and Research  
CN 057  
Trenton, NJ 08625  
(609) 292-3403

## Continuing Eligibility

### Problem to be Studied

New Jersey Unemployment Insurance Employability Program - A study is being conducted to measure the effectiveness of the Unemployment Insurance Employability Program (UIEP) in aiding claimants in obtaining employment and reducing the duration of the unemployment claim. The cost-effectiveness will be measured as will the extent of services provided by the New Jersey Job Service to program participants.

### Study Title (tentative)

An Evaluation of the New Jersey Unemployment Insurance Employability Program.

### Methods of Analysis

To measure the effects of UIEP a Posttest-only Control Group Design experiment is being utilized over a twelve-month period. During the test year, two one-month sampling periods were selected. In each, a random sample of 75 claimants meeting the program entry requirements were selected in each of four local UI claims offices. The sample was then divided into two groups, 25 claimants in the control group and 50 into an experimental group. The latter was then subset into a participant group and a group who were offered participation but refused or were not selected.

After a six-month span the claims experience for the participants in each group is being measured and compared. After one year the measurements will again be calculated and the claimants will be questioned, via mail, as to their work experiences.

### Completion Date

It is expected that a preliminary report will be ready by the end of 1981 and the final report by the summer of 1982.

### Contact Persons

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(609) 292-3403/292-2395

Duration of Benefits

PROBLEM STUDIED

Exhaustee Characteristics: The purpose of the study will be to find out which demographic groups of claimants have tendencies to exhaust benefits.

Study Title:

Characteristics of Unemployment Insurance Exhaustees in Virginia

Methodology:

Hypotheses to be tested

1. The lesser the social pressure to work, the greater is the role of unemployment insurance in discouraging work and, thus, the greater is the tendency to exhaust benefits. Such would presumably be the case among older males, secondary workers, and persons with no dependents.
2. The exhaustion of benefits is positively related to the earnings-replacement ratio. Because of the benefit minimum and maximum, this ratio is highest among workers in low-skill occupations.

Sampling Design

The sample will be the universe of claimants exhausting benefits during the period of April 12 - May 23, 1981. Additionally, a sample of 1,500-2,000 will be selected from these claimants for use in a mail-out survey.

Data Source

Data for the exhaustees will be from the Payment History Master Record and the mail-out response.

Method of analysis

Comparison will be made between the exhaustee characteristics as shown by the sample and the characteristics of the claimant population as reflected on the ES-203. The mail-out survey will be conducted during the 8th, 16th and 24th weeks after exhaustion of benefits. After the survey forms are collected, reemployment and labor-force drop-out rates will be computed for the three periods. It is anticipated that through analysis of the sample and the mail-out survey, the hypotheses can be tested.

Expected completion date: Winter 1982

Person To Contact

Alex Valz  
Manpower Research Division  
Virginia Employment Commission  
703 E. Main Street  
Richmond, Virginia 23211 - Telephone: (804) 785- 5722

Duration of Benefits

STUDY TITLE

A Statistical Analysis of the Relationship Between First and Final Payments in Major Industry Division and Specific Chosen Industries

PROBLEM TO BE STUDIED

Do claimants who receive final payments in Kansas come primarily from any specific industries and is there any specific relationships over a period of time to first payments.

DATA SOURCES

1. Monthly printouts of Kansas unemployment insurance data.
2. Weekly claims information sheets from district job insurance offices.

METHODS OF ANALYSIS

Statistical analyses of the relationship between final payments and first payments lagged five months for the July 1979 - November 1980 period.

EXPECTED COMPLETION DATE

September 1981

PERSON TO CONTACT

William H. Layes or Thomas D. McClure  
Kansas Department of Human Resources  
Research and Analysis Section  
401 Topeka Avenue  
Topeka, Kansas 66603  
Phone: (913) 296-5066

Delayed and Never Filing for Benefits

STUDY TITLE

An Analysis of the Experiences of a Sample Group of Kansas Non-Filers during 1978

PROBLEM TO BE STUDIED

To identify and analyze the reasons why a sample of individuals, determined to have a lapse in employment, failed to file for jobless benefits.

METHODOLOGY

Sampling Design

The sample consists of individuals with a break in reported earnings during calendar year 1978.

Data Source

Data being used were collected through the Job Insurance Program administered by the Kansas Department of Human Resources.

Methods of Analysis

A quarter by quarter review of the wage base file was made to identify those individuals with a lapse in reported earnings. A subsequent comparison was made with the claimant file to eliminate those who filed claims. Survey questionnaires were sent to a sample of those remaining inquiring as to post-separation activities and reasons for non-filing. Demographic, occupational, and industry comparisons will be made.

EXPECTED COMPLETION DATE

September, 1981

PERSON TO CONTACT

William H. Layes  
Research and Analysis Section  
Kansas Department of Human Resources  
401 Topeka Avenue  
Topeka, Kansas 66603  
Phone: (913) 296-5066



Claimant Characteristics

Study Title:

"Covered Workers in Nebraska 1970-1980" will present information concerning Nebraska's eligible insured unemployed.

Data Source:

ES-202, ES-203, ES-206, ES-217 and ES-218

Expected Completion Date:

August 1981

Contact Person:

Lucile Keenan  
Nebraska Department of Labor  
Research and Statistics  
P.O. Box 94600, State House Station  
Lincoln, Nebraska 68509  
(402) 475-8451, Ext. 244

## Unemployment Indicators and Statistics

### Study Title

"Study to Improve the Estimating Methodology for Local Area Unemployment Statistics through an Analysis of Spells of Unemployment and Unemployed Exhaustees"

### Problem to be Studied

The current LAUS estimating methodology for unemployed exhaustees of UI benefits uses annual CPS (Current Population Survey) data to develop a "survival rate" for this group. This application of a uniform survival rate has several shortcomings. It does not allow for the different state laws on duration of benefits and their effect on weeks of unemployment. The various economic conditions which may exist within the different areas are also not taken into account. Also, no adjustment is made to final pay data to remove those who establish a new benefit year and this allows such persons to be counted in the estimate of unemployed exhaustees, while they also appear as an "insured employed".

### Method

#### Sampling Design:

Claimants to be included in the survey group are those receiving a final payment starting with the week ending on January 31, 1981, and up through the week ending on January 22, 1982. A random sample will be made of those claimants from the state's largest county, Maricopa, while a census will be used for the smaller counties.

#### Data Sources:

Data sources are claimant records in the Arizona UI database and mail questionnaires which will be sent out thirteen weeks and twenty-six weeks after the week for which the final payment was given. The questionnaires ask for data concerning the exhaustees' labor force status.

#### Methods of Analysis:

Characteristics of persons receiving final payments will be compared with the characteristics of all UI claimants. For each Arizona county, linear regression techniques will be used to estimate a survival rate for exhaustees. Recommendations will be made with regard to the integration of the project's results into the LAUS estimating system.

### Expected Completion Date

December 31, 1982.

### Person to Contact

Robert St. Louis  
Arizona Department of Economic Security  
1720 W. Madison  
P.O.Box 6123  
Phoenix, Arizona 85005      Telephone: (602) 255-3661

Unemployment Indicators and Statistics

STUDY TITLE:

The Impact of Delays in the Monetary Determination Process on the Number and Characteristics of Ineligible Claimants

PROBLEM TO BE STUDIED:

The process which determines a claimant's monetary eligibility can vary with regard to the amount of time required. A case with no wage protest might take as little as one day, whereas a case which is carried all the way through the appeals process might take a few years. If monetarily ineligible claimants are to be included in the Handbook approach to estimating local area unemployment, then the amount of time between a claimant's initial determination and the decision to include that person as a monetarily ineligible claimant in the unemployment estimate will be critical. A compromise will have to be made between the desire for greater accuracy (which would demand waiting for revisions to be made) and the need for promptness of statistical output.

METHOD:

Sampling Design:

We will use a census of all individuals filing for UI benefits in Arizona whose effective date for their particular claim falls within calendar year 1980.

Data Sources:

For each monetary determination made, a computer punch card is produced which has the claimant's Social Security Number, effective date of claim, processing date of claim, and other information. At the end of that data collection period, additional information on each claimant will be obtained from the Arizona UI database.

Methods of Analysis:

Inferential statistics will be used to obtain the following:

1. An estimate of how the difference in time between an effective date and a processing date affects the number and characteristics of monetary ineligibles.
2. The correlation between various personal characteristics and the chance of a change in eligibility status.

EXPECTED COMPLETION DATE:

August 31, 1981

PERSON TO CONTACT:

Robert St. Louis  
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P.O. Box 6123  
Phoenix, AZ 85005  
Telephone: (602) 255-3661

Benefit Financing

STUDY TITLE

Benefit Financing in Kansas - 1982 to 1989

PROBLEM TO BE STUDIED

Develop estimates of future benefit levels through actuarial methodologies to insure that future reserve levels are adequate for maintaining solvency.

DATA SOURCES

Records of the Kansas Department of Human Resources.

METHODS OF ANALYSIS

Development of three economic projections for the 1982 to 1989 period using actuarial methodologies developed by the Division of Actuarial Services.

EXPECTED COMPLETION DATE

On or about September, 1981.

PERSON TO CONTACT

William H. Layes  
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Topeka, Kansas 66603  
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Benefit Financing

STUDY TITLE

Financing Unemployment Insurance in Mississippi

PROBLEM TO BE STUDIED

The purpose of this study is to ascertain the amount needed in Mississippi's Unemployment Insurance Trust Fund to insure its solvency and to determine the most equitable tax formula for maintaining the fund at the optimum level.

DATA SOURCES

Records and reports of the Mississippi Employment Security Commission are used in this study and, for the economic analysis of the State, various publications dealing with the economy of Mississippi.

METHODS OF ANALYSIS

Against a background of Mississippi's experience in the payment of UI benefits, collection of employer taxes, and changes over the years in the Mississippi Employment Security Law, tax rate formulas were tested under three projected possible levels of economic activity for the 1980-1985 period: a favorable, an intermediate, and a least favorable economic scenario.

Note: Invaluable assistance in making this study has been given by James Manning and Ron Wilus of the Division of Actuarial Services, Unemployment Insurance Service, ETA, Washington, D.C.

EXPECTED COMPLETION DATE

This study is near completion. The study report is being prepared for publication, and it probably will be available on or about July 1, 1981.

NAME, ADDRESS, AND TELEPHONE NUMBER OF CONTACT PERSON FOR THE PROJECT

Fred Williams, Mississippi Employment Security Commission  
P. O. Box 1699  
Jackson, Mississippi 39205

Telephone Number (601) 961-7444

Benefit Financing

Study Title - Monitoring the U. I. Benefit Cost Revisions

Author - Employment Security Division - Research and Analysis Section

Date of Report - Late 1983

Results - The results could trigger legislative changes in 1984

Methods of Analysis - Combination of methodologies as shown below:

1. A random sample of initial claimants will be chosen to show the results of the law change for the following items:
  - A. Increasing the minimum benefit amount from \$15 to \$31.
  - B. Freezing the maximum benefit amount at \$136 from July 1, 1981-December 31, 1983.
  - C. Twenty-five percent reduction of base period earnings for claimants who voluntarily quit base period employers.
2. Monitor all claimants who file an initial claim in the 2nd Qtr. CY 1981 who received a disqualification for either refusal of suitable work or for misconduct. This will be compared with similar data for claimants who file and receive the same disqualification in the 2nd Qtr. CY 1982. The difference in the length of duration can be assumed to determine the cost savings caused by the law change (decreasing MBA by eight weeks but not less than one week).
3. Monitor all claimants who attempt to requalify for benefits during the month of August 1981 (one month following the law change). The requalifying requirements were increased from 6 to 10 times the WBA.
4. Monitor increase in collections as a result of increasing contribution rates assigned to negative balance employers.

Contact Person

Bob Morgan  
Arkansas Employment Security Division  
P.O. Box 2981  
Little Rock, Arkansas 72203

Operations

TITLE: A Profile of Overpaid Unemployment Insurance Claimants in South Carolina

METHOD: A stratified sample (broken down by fraud vs. non-fraud overpayment) of 845 overpaid claimants from the third and fourth quarters of 1978 was taken from the Model Crossmatch System. These sample claimants had regular UI, UCFE and UCX claims. The sample was matched with claimant data and benefit history files to obtain demographic and UI characteristics. Sample characteristics were compared with available characteristics for the population of all regular UI, UCFE and UCX claimants from the same period.

EXPECTED COMPLETION DATE: May 1981

AVAILABILITY: Joe Ward  
Room 617  
S.C. Employment Security Commission  
1550 Gasden St.  
Box 995  
Columbia, S.C. 29202  
(803) 758-8983

Operations

Service to UI Claimants, 1976 -1980 (See Continuing Eligibility)

An Evaluation of the New Jersey Unemployment Insurance  
Employability Program. (See Continuing Eligibility)



Miscellaneous

STUDY TITLE

Mississippi's Business Population--Births, Deaths, and Changes in Ownership, 1979

PROBLEM TO BE STUDIED

This study attempts to determine the types of new industries being established in Mississippi; the types of businesses ceasing operation; and the types of business changing ownership within the State and the counties.

DATA SOURCES

Computer tabulations on employer registrations and terminations, by-products of employer status operations, and employment and wages data from the ES-202, Employment, Wages, and Contributions Report, are used in the analysis of business patterns in the State and its counties.

EXPECTED COMPLETION DATE

This study report is being prepared for publication, and it probably will be available June 1, 1981.

NAME, ADDRESS, AND TELEPHONE NUMBER OF CONTACT PERSON FOR THE PROJECT

Eugene C. Brown, Mississippi Employment Security Commission  
P. O. Box 1699  
Jackson, Mississippi 39205

Telephone Number (601) 961-7436



B. Research Projects Completed

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A Preliminary Investigation of the Unemployment Insurance Benefit Ratios of Wyoming Employers	Wyoming Employment Security Commission	54
Actuarial Report 1980-1, August 21, 1980: "The Taxable Wage Base and the Incidence of the UI Tax, or 'How Big is the UI Tab, and Who Picks It Up?'"	Illinois Bureau of Employment Security	56

<u>Study Title</u>	<u>Affiliation of Investigator</u>	<u>Page</u>
Actuarial Report 1980-2, September 10, 1980: "The Taxable Wage Base, the Exemption of the First \$40,000 of Taxable Wages in a Quarter from a Rate Higher than the Standard Rate, and the Incidence of the UI Tax."	Illinois Bureau of Employment Security	57
Actuarial Report 1980-3, September 22, 1980: "Experience Rating, the Exemption of the First \$40,000 of Taxable Wages in a Quarter from a Rate Higher than the Standard Rate, and the Incidence of the UI Tax."	Illinois Bureau of Employment Security	58
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## Qualifying Requirements

### Title

Monetary Eligibility for Unemployment Insurance

### Author

Mamoru Ishikawa

### Date

April 1981 (draft)

### Results

1. The first part of this paper described the existing five qualifying requirement approaches and their advantages and disadvantages in light of the objectives of the qualifying requirement. This conceptual discussion of different approaches leads to the conclusion that the weeks of work requirement, (if the underlying definition of a week worked is in real terms) and the hours of work requirement are most desirable in light of the criteria:
  - a. of ensuring the claimants' base period work attachment; and,
  - b. of treating claimants with the same base period attachment equally with respect to eligibility.
2. The second part of the paper tested the four qualifying requirement approaches (the five minus the hours of work requirement) empirically in light of:
  - a. proportions of eligible claimants under the equivalent specification of these formulas;
  - b. distributions of eligible and ineligible claimants under the equivalent formulas; and
  - c. the benefit cost relative to the tax revenue paid for the claimants.

The samples simulated for six States (i.e., California, Iowa, Louisiana, Nevada, New York and Utah) using the Washington State CWBH sample yield the following preliminary results for seven States (including Washington)\*

- a. The flat dollar requirement is associated consistently with the largest proportion of eligible claimants compared with other requirement formulas expressed in equivalent terms.

\*Because of data problems, all findings of this analysis are preliminary.

- b. Concomitantly, the potential benefit cost relative to tax intake is the highest under the flat dollar requirement.
  - c. The weeks of work requirement is clearly most able to treat the claimants equitably in their eligibility determination relative to their base period work experience.
3. As a part of the simulation analysis, the impact of adopting the 20 weeks of work (at 15 hours per week) requirement was evaluated. The result is that shifting from the existing formulas to 20 weeks of work would reduce the potential benefit costs per claimant by \$26 in California, \$19 in Iowa, \$32 in Louisiana, \$3 in Nevada, \$9 to \$24 in New York, \$15 to \$27 in Utah and increase them by \$126 in Washington.

#### Method

The CWBH claimant sample of Washington State, for the period between July 1979 and November 1980, was used for the analysis in the second part of the paper. States' claimant samples were simulated by reweighting the Washington sample observations by the industry mix of the State insured unemployed.

#### Availability

Draft copies may be obtained from:

Division of Research Services  
Unemployment Insurance Service  
(202-376-5164)

## Disqualifications

### Study Title

An Analysis of the Impact of Unemployment Insurance Disqualification Provisions Using Continuous Wage and Benefit History Data

### Author

John G. Robinson

### Date of Report

June 1981

### Results

#### A. Findings

1. Claimants disqualified for an indefinite period had a statistically significant shorter compensated duration than claimants disqualified for a definite period.
2. Claimants disqualified for an indefinite period for misconduct had a statistically significant shorter compensated duration than claimants disqualified for a definite period for misconduct.
3. Claimants disqualified for an indefinite period for misconduct experienced six fewer weeks of compensated duration than beneficiaries.
4. Claimants disqualified for a definite period experienced approximately three fewer weeks of compensated duration than beneficiaries.

#### B. Conclusions

The shorter compensated duration experienced by the claimants disqualified for a definite period for job separation issues compared with beneficiaries may have potential policy implications. In the Henry Felder study, "A Statistical Evaluation of the Impact of Disqualification Provisions of State Unemployment Insurance Laws," claimants disqualified for a definite period were found to have more days of unemployment than beneficiaries. Claimants disqualified for indefinite periods were found to have fewer days of unemployment than beneficiaries. Felder concluded from these findings that there would be significant cost savings associated with a State changing its disqualification provision from a definite period to an indefinite period. In this study, claimants disqualified for a definite period had a shorter compensated duration on average than beneficiaries. The findings of this study can not be used at this time for policy recommendations because it is not known what effect the difference in definitions in the two studies has on the results or to what extent the truncation effect of the compensated duration biases the results. Further study

will be conducted inhouse to determine if the differences between the two studies can be reconciled.

Methodology

Multivariate regression analysis was used to analyze pooled data from Georgia, Iowa, Missouri and New Mexico. The data source was the Continuous Wage and Benefit History Data Bank of the respective States. The study time period covered for most of the States was 1979-80. Data for 1978 were also available for Georgia. Compensated duration was used as a proxy for total duration in this study and may have resulted in biases of the results due to the truncation effect.

Contact Person

For additional information contact John Robinson  
202-376-6347



## Disqualifications

### STUDY TITLE:

Pensioners Who Received Unemployment Insurance Benefits,  
November 1978, March 1979, and August 1979

### AUTHORS:

Ruth Etes and Sidney Rosenthal, Division of Research and Statistics,  
New York State Department of Labor

### DATE OF PUBLICATION:

December 1980

### FINDINGS:

Some 70 percent of the pensioner-claimants were 65 years old or older. Almost 90 percent had Social Security pensions, and more than one-third were receiving pensions from two or more sources, of which Social Security was usually one.

Application for a pension is not automatically identifiable with retirement from the labor market. Many of the sample pensioners who were drawing unemployment insurance benefits in November 1978 first received a pension years ago. Earnings in the 12 months that preceded the current benefit year were considerably lower for long-term retirees than for recent retirees.

The 1976 Federal law, prior to amendment, provided for 100 percent deduction of pension amounts from UI benefits. Under this provision, over half of the sample pensioner-claimants would have had their UI benefits wiped out; and four-fifths would have lost at least 75 percent of their benefits.

### METHOD:

#### Problem Studied: Pensioners in the UI System

The Federal Unemployment Compensation Amendments of 1976 included a provision that a claimant's weekly unemployment benefit be reduced by the amount of retirement pay he was receiving for that week. The effective date of the Federal provision was deferred to April 1980 to allow time for study of the issue. As a guide to legislative reconsideration, New York designed a study to provide information on the labor force attachment and UI benefit experience of pensioners claiming unemployment benefits and on the potential effect of the Federal pension provision on their unemployment benefit payments.

#### Sampling Design:

Information for the study was obtained from surveys of pensioners filing claims for unemployment insurance (UI) benefits in local UI offices of New York State in three selected weeks of the year --

in March, August, and November. The time spread was intended to reduce the effect of seasonal unemployment on the data received. All pensioners who filed original claims and a sample of pensioners who filed additional and continued claims in the designated weeks were given questionnaires to answer during their visit to the local office. Additional information was supplied by local office staff and from records on unemployment insurance claimants maintained in Albany.

Data Source:

All UI local offices in New York State.

Method of Analysis:

Information collected from claimants on the survey forms was combined with data in the local offices and in the central office computer files and used to produce summaries showing:

- . Characteristics of pensioner-claimants, reasons given by them for retirement, and types of pensions received.
- . Base-period employment and earnings, as related to age, sex, and date of retirement. A comparison is made between pre-retirement and post-retirement base-period weeks and wages.
- . Benefit reduction due to the 1976 Federal pension deduction provision: Impact on claimants and overall benefit cost in New York State.
- . Experience under the New York State pension deduction provisions which were in effect before the Federal requirement took effect, and which resemble some of the modifications of the 1976 Federal law which had been proposed.

AVAILABILITY:

Send request to:

Mr. Sanford Fialkoff  
New York State Department of Labor  
Division of Research & Statistics  
Building 12  
State Office Campus  
Albany, New York 12240

Weekly Benefit Amount

Study Title

Changes in Spending Patterns Following Unemployment

Authors

Paul L. Burgess and Jerry L. Kingston, Associate Professors of Economics, Arizona State University, and Robert D. St. Louis and Joseph T. Sloane of the UI Research and Reports Section, Arizona Department of Economic Security.

Date of Publication: 1981

Results

1. Mean monthly expenditures during the month prior to thirteen consecutive weeks of unemployment fell by 15 percent in comparison to expenditures for the preunemployment month (from \$865 to \$734), whereas monthly gross recurring household income fell by 43 percent (from \$1,111 to \$636). Moreover, spending for expenditures classified as "necessary/obligated" during the month prior to thirteen consecutive weeks of unemployment (\$632) nearly equaled gross recurring household income of \$636 (which includes UI benefits) during the same month. The results suggest that, on average, the beneficiary's unemployment spell was not fully anticipated by the beneficiary household. Thus, even the provision of UI benefits was not sufficient to allow many of these households to maintain their preunemployment standards of living over this three-month interval. This was the case even though these households also undertook a number of other adjustments to maintain their living standards, such as reducing their savings or having other family members work more hours or begin to work.
2. Mean spending for the sample fell after unemployment in all but one of the thirteen expenditure categories used. The smallest percentage reductions in spending were for housing (5.8 %) and charity/gifts (6.1 %), whereas the largest percentage cuts were for services/other (44.7 %), travel/etc. (43.3 %), and clothing (39.4 %). The mean change for charity/gifts is not all typical of changes typically made in this category, as median spending for charity/gifts declined from \$15.66 before unemployment to \$1.81 after unemployment.
3. The ranking (from the smallest to largest percentage reduction in spending) for the total sample indicates that two of the ten items defined as necessary/obligated expenses in developing the benefit adequacy measure utilized in this study rank low in importance, at least in the sense that the study group cut spending substantially in each category. These two categories are clothing (with a rank of eleventh and a spending cut of 39 %) and services/other (with a rank of thirteenth and a spending cut of 45 %). These results indicate that some consideration might be given to altering the expenditure categories included in future benefit adequacy studies.

Methods

A random sample of Arizona UI beneficiaries was used. The sampling period was during 1975-1976. Sources of data were household interviews held after five

and thirteen consecutive weeks of compensated unemployment. Methods of analysis include the construction of confidence intervals around percentage charges and the use of Milton Friedman's permanent income hypothesis.

Availability:

Copies of the report are available from DOL/ETA, Office of Communications, Patrick Henry Building, Room 10225, 501 'D' Street, N.W., Washington, D.C. 20213.

Duration of Benefits

STUDY TITLE:

Spells of Unemployment and Other Studies of Unemployment Insurance  
Beneficiaries

AUTHOR:

Ruth Entes, Division of Research and Statistics, New York State  
Department of Labor

DATE OF PUBLICATION:

April 1980

FINDINGS:

Of the sample beneficiaries with benefit years ending in 1976:

- . Fifty-five percent drew their regular benefits in a single spell.
- . Thirty percent exhausted regular benefits in a single spell,  
and 16 percent exhausted in two or more spells.
- . Twenty-three percent exhausted regular and extended benefits  
in a single spell, and 11 percent in two or more spells.
- . Twelve percent exhausted regular, extended, and supplemental  
benefits in one spell, and 6 percent in two or more spells.

Although comparable data are not available for all recent years, indications are that the percentage of claimants with single spells of unemployment may be trending upward and that it tends to be higher in recession years than in other years.

The last benefit payments received by all claimants with benefit years ending in 1974-76 spread over their benefit years, with some concentration in the second quarter (primarily for claimants with one spell of unemployment) and in the fourth quarter (mostly for claimants with more than one spell.)

Four-fifths of the beneficiaries with benefit years ending in 1976 had only one base-year employer. The percentage varied with the age of the claimant, ranging from 72 percent for claimants who were less than 25 years old to 93 percent for those who were 65 or older. In the previous two years, the percentages were slightly lower but showed similar variation with age.

METHOD:

Problem Studied: Spells of unemployment and other UI experience

The objective of this descriptive study was to provide background analysis with respect to (1) beneficiaries' numbers of spells of compensated unemployment, especially in the recession period starting

in 1975, (2) the timing of claimants' last benefit payments in their benefit years, and (3) the proportions of claimants with one and more than one base-year employer.

Sampling Design:

Information for the benefit years ending in 1964 through 1976 is based on a sample of approximately 0.1 percent of unemployment insurance beneficiaries in each benefit year, drawn on the basis of Social Security account numbers. Information for the benefit years ending in 1954 through 1963 is based on annual samples of approximately 10 percent of beneficiaries.

Data Source:

Printouts of sample data from central computer files on unemployment insurance beneficiaries for the benefit years 1973-74, 1974-75, and 1975-76. Data for earlier years were obtained from previously published reports.

Method of Analysis:

The sample beneficiaries with benefit years ending in 1976 are traced through regular, extended, and federal supplemental benefits to determine the proportions who had one spell or two, three, etc., spells of benefits from the start of their benefit year. Other summaries show average length of spell and overall duration in relation to the number of spells. For regular benefits, there are historical comparisons.

The second analysis of 0.1 percent samples (for benefit years ending in 1974 through 1976) shows the proportions of beneficiaries who received their last benefit payment in the first, second, third and fourth quarters of their benefit years. Distributions are shown for beneficiaries classified according to duration of benefits and according to whether they had one spell or more than one spell of compensated unemployment.

The third analysis shows distributions of beneficiaries by the number of their base-year employers. There are separate distributions for four age groups as well as for all beneficiaries.

AVAILABILITY:

Send request to: Mr. Sanford Fialkoff  
New York State Department of Labor  
Division of Research and Statistics  
Building 12  
State Office Campus  
Albany, New York 12240

Claimant Characteristics

Study Title:

"Covered Workers in Nebraska 1970-1979" presents information concerning Nebraska's eligible insured unemployed.

Data Source:

ES-202, ES-203, ES-206, ES-217 and ES-218

Contact Person:

Lucile Keenan  
Nebraska Department of Labor  
Research and Statistics  
P.O. Box 94600, State House Station  
Lincoln, Nebraska 68509  
(402) 475-8451, Ext. 244

Unemployment Indicators and Statistics

STUDY TITLE:

Characteristics and Labor Market Experiences of Monetarily Ineligible Claimants for Unemployment Insurance

AUTHOR:

Robert Furgerson, "U.I. Research and Reports Section, Arizona Department of Economic Security

DATE OF REPORT:

1981

PROBLEM:

Currently, persons declared monetarily ineligible for unemployment insurance benefits are not specifically included in the LAUS estimating system. Failure to take monetarily ineligible claimants into account will produce biased estimates of unemployment unless either of the following conditions is met:

1. The number of monetarily ineligible claimants is an insignificant proportion of the labor force, or
2. Monetarily ineligible claimants are distributed evenly throughout the state, and the labor force experience of those claimants does not vary significantly from area to area during the weeks following the ineligible claim.

RESULTS:

1. For calendar year 1979, 12,210 people filed for unemployment insurance benefits in Arizona and were determined to be monetarily ineligible (63,320 filed monetarily eligible claims).
2. In comparison to labor force size and as a percentage of total claims, the two large urban counties (Maricopa and Pima) had much fewer monetarily ineligible claimants than did the urban counties.
3. A larger percentage of ethnic minority claimants had their claim declared monetarily ineligible than did white claimants. The very young and the elderly were more likely than other claimants to be determined monetarily ineligible.
4. Linear regression techniques were used with the survey data to compute survival rates for each Arizona county. Survival rates for rural counties were found to be higher than those of the urban counties. It is recommended that monetarily ineligibles be specifically included in the LAUS estimating system. A representative worksheet showing how to best compute the number of "surviving" monetary ineligibles is included in the paper.



METHODS:

Sampling Design: A stratified random sample was used. A random sample was chosen for each of the four Arizona counties with the largest expected population of monetary ineligibles, while a census was used for the smaller counties.

Data Sources: Claimants' records from the Arizona UI database and information from survey respondents' questionnaires.

Method of Analysis: In comparing the characteristics of monetarily eligible claimants, two-tailed t-tests were used to test for statistical significance. Chi-square values were used to test for response bias. The method of least squares was used to derive survival rates.

AVAILABILITY:

Robert Furgerson  
Arizona Department of Economic Security  
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P.O. Box 6123  
Phoenix, AZ. 85005  
Telephone: (602) 255-3591

Benefit Financing

A Preliminary Investigation of The Unemployment  
Insurance Benefit Ratios of Wyoming Employers

By

Ellen M. Schreiner

Date of Report

August 1980

Project Results

The purpose of this research was to test the utility of the experience rating system, since such a system is valuable only if the rates of individual firms are not all the same or do not vary in completely random fashion. The project dealt with five different, though interrelated factors. These were: 1) the distribution of costs for experience rated employers in Wyoming; 2) the amount of variation in tax rates between industry groupings in Wyoming based on standard industrial code (SIC) designations; 3) the amount of variation in benefit ratios between Wyoming employers based on payroll size; 4) the degree of variation in benefit ratios between counties in Wyoming; and 5) the experience of individual firms within three different industrial groupings.

With regard to the distribution of costs for experience rated employers, the study results showed that benefit ratios during 1979 had an exponential distribution with the majority of employers having a benefit ratio of 0. These results should not be considered as conclusive since Wyoming's economy during the three-year period of 1976, 1977, and 1978 was healthy, and unemployment was low. It would be worthwhile to study the benefit ratios of experience rated employers over a number of years to determine if changes in the economy do make a difference.

The results of the research in the second, third and fourth areas generally confirmed previous findings in different states concerning the effects of industry type, county of location, payroll size and tax rates. For example, employers that were coded as construction type operations showed fewer benefit ratios of 0% than would be expected and more firms than expected with benefit ratios greater than 3%.

The last part of the research was preliminary in nature and explored three industrial groupings. Among the employers with high benefit ratios, 89% of the total claimants drawing benefits were laid off due to a lack of work. Only 39% of the claimants from the employers with low benefit ratios were laid off due to a lack of work.

## Method

### Hypotheses Tested

In conducting this research, four hypotheses were tested. They were:

#### Hypothesis No. 1

The distribution of benefit ratios for Wyoming employers in tax year 1979 will be normal with some skewing to the right.

#### Hypothesis No. 2

The pattern of frequencies for the employer industrial groupings will differ significantly from the expected distribution pattern of benefit ratios for the total employer population.

#### Hypothesis No. 3

The pattern of frequencies for the employer taxable payroll groupings will differ significantly from the expected distribution pattern of benefit ratios for the total employer population.

#### Hypothesis No. 4

The pattern of frequencies for the employer location grouping will differ significantly from the expected distribution pattern of benefit ratios for the total employer population.

Since it was not possible to depend upon a normal distribution when testing hypotheses 2, 3, and 4, the chi square test was used at a 95% probability level with 4 degrees of freedom. The expected chi square value was less than or equal to 9.49.

### Data Sources

Data for this study was obtained from the 1979 tax rate notices for Wyoming employers, claimant files from the Benefit Section of the Unemployment Compensation Division, and the 1979 Parish Section of the Employment Security 202 Report.

### Availability

Contact Ellen M. Schreiner, UI Budgetary Management Analyst, Wyoming Employment Security Commission, P. O. Box 2760, Casper, Wyoming 82602, Telephone 307-235-3244.

Benefit Financing

Problem Studied: Impact of different methods of specifying the taxable wage base on the incidence of the U.I. Tax.

Study Title: Actuarial Report 1980-1, August 21, 1980: "The Taxable Wage Base and the Incidence of the U.I. Tax, or 'How Big is the U.I. Tab, and Who Picks It Up?'"

Method: Explore the consequences for taxable wages and contributions for a low-wage, an average-wage, and a high-wage firm of taxable wage bases defined as: (1) the first \$6,500 of total wages paid to an employee in a year; (2) 45 percent of the total wages paid to an employee in a year; and (3) 50 percent of the total wages paid to an employee in a year. Employment is held constant at each of three firms. The original distribution of workers by total wages is constructed so as to approximate the average annual wage in Illinois during 1979. The distribution of workers by total wage is then altered to produce a higher-than-average-wage firm and a lower-than-average-wage firm. Comparisons are made of the ratio of taxable to total wages for each firm under each taxable wage base assumption. Similarly, contribution rates in terms of taxable wages and in terms of total wages are compared.

Completion date: August 21, 1980

Author: Arthur N. Barnes, Employment Security Research

Availability: Illinois Bureau of Employment Security  
Research and Analysis  
Harry M. Hardwick, Director  
910 South Michigan Avenue  
Chicago, Illinois 60605

Benefit Financing

Problem Studied: Combined effect of two different methods of specifying the taxable wage base and the exemption for each employer of the first \$40,000 of taxable wages in a quarter from a tax rate greater than 2.7 percent on the incidence of the U.I. Tax.

Study Title: Actuarial Report 1980-2, September 10, 1980: "The Taxable Wage Base, the Exemption of the First \$40,000 of Taxable Wages in a Quarter from a Rate Higher than the Standard Rate, and the Incidence of the U.I. Tax."

Method: Explore the consequences for taxable wages (both exempt and non-exempt) and contributions for a low-wage firm, an average-wage firm, and a high-wage firm of taxable wage bases defined as: (1) the first \$6,500 of total wages paid to an employee in a year; and (2) 50 percent of the total wages paid to an employee in a year. Employment is held constant for each of three firms. The distribution of employment by total wages paid is altered so as to produce an average-wage firm, a below-average-wage firm, and an above-average-wage firm, with the average wage for the average firm approximating the annual average wage in Illinois during 1979. Comparisons are made of contributions and contribution rates for each firm with and without exempt taxable wages under the two different taxable wage base assumptions:

Completion date: September 10, 1980

Author: Arthur N. Barnes, Employment Security Research

Availability: Illinois Bureau of Employment Security  
Research and Analysis  
Harry M. Hardwick, Director  
910 South Michigan Avenue  
Chicago, Illinois 60605

Benefit Financing

Problem Studied: Revenue consequences for Illinois of permitting the first \$40,000 of taxable wages paid in a quarter to be exempt from a tax rate greater than the standard rate (2.7% plus 0.3%) and the effect of such exemption on experience rating and the incidence of the U.I. Tax.

Study Title: Actuarial Report 1980-3, September 22, 1980: "Experience Rating, the Exemption of the First \$40,000 of Taxable Wages in a Quarter from a Rate Higher than the Standard Rate, and the Incidence of the U.I. Tax."

Method: Using the 1980 ES-204, Schedule D, compare the projected revenue yield for each tax rate with the first \$40,000 exemption and with no exemption. Develop the concept "effective tax rate" and show how the effective tax rate deviates from the nominal rate for various combinations of nominal tax rates and proportions of taxable wages exempted. Finally, examine the impact of the exemption on the experience rating process.

Completion date: September 22, 1980

Author: Arthur N. Barnes, Employment Security Research

Availability: Illinois Bureau of Employment Security  
Research and Analysis  
Harry M. Hardwick, Director  
910 South Michigan Avenue  
Chicago, Illinois 60605

Operations

STUDY TITLE:

Prevailing Wage Information for Unemployment Insurance Administration

AUTHOR:

Gerald Clayman, Division of Research and Statistics, New York State  
Department of Labor

DATE OF PUBLICATION:

September 1980

RESULTS:

This report is a description of the methods used in New York State to ascertain prevailing wages in New York City. This wage information is required for implementation of the provision in the State Unemployment Insurance Law providing that a claimant shall not be denied UI benefits for refusing a job in which wages, hours, and other working conditions are less favorable than those prevailing for the occupation in the locality.

AVAILABILITY:

Send request to:

Mr. Sanford Fialkoff  
New York State Department of Labor  
Division of Research and Statistics  
Building 12  
State Office Campus  
Albany, New York 12240

STUDY TITLE

The Use of Telephone Conferencing in Administrative Fair Hearings

AUTHOR

Dr. Jerome R. Corsi  
Principal Investigator  
Fair Hearing Project  
Associate Research Professor  
Department of Political Science  
University of Denver

DATE OF REPORT

May, 1981

RESULTS

The researchers drew the general conclusion that telephone hearings compared quite favorably with in-person hearings and they perceived no reduction in hearing quality by reason of the introduction of teleconferencing. Specific findings of major importance were as follows.

There is strong support for the finding that the conference telephone hearing solves the due process problems which inhere in the separate hearing procedure. The telephonic equipment enables the parties to hear all of the evidence that is presented by the opposing side and provides the opportunity to cross-examine opposing witnesses. Thus it furnishes the additional core elements that are needed for a fair hearing when the parties are apart. Under these circumstances, the telephone proceeding would meet due process standards as specified by the Courts for administrative hearings of this type.

Considerable savings in both time lapse and travel expense can be provided by teleconferencing. On the basis of the economic analysis that was made, it was concluded that the New Mexico Employment Security Department can conduct telephone hearings at an average expense less than one-fifth the cost presently incurred in conducting hearings which require referee travel. The research report states that the findings of the study strongly support the conclusion that teleconferencing is a viable substitute for hearing officer travel. Of the two telephone modes tested, the split conference telephone hearing in which the hearing officer places a conference call to the parties at a location convenient to them and their witnesses (usually at their home and place of business) is recommended. This system received better participant reaction and more favorable peer review judgment than the other mode which would require participants to appear personally at a local employment security office. Additionally, office telephone hearings are



more difficult to schedule and conduct in that personnel time and room in local offices must be expended to accommodate participants who arrive in person to participate in the telephone conference.

The report states further that telephone hearings can be integrated into an existing in-person hearing system. Of highest priority to conduct by telephone are: (1) intrastate split hearings where employers and employees are geographically apart and two separate in-person hearings would normally be heard; (2) all interstate hearings; and (3) intrastate hearings at distant locations which have a low volume of appeals.

#### METHOD

Findings that the researchers made were based in major part upon hearing participant attitudinal response and peer quality assessment of hearings. There were three types of hearings tested. One was the conventional in-person hearing in which all participants and the hearing officer were assembled at one and the same location. The second was the "split telephone hearing" in which the hearing officer placed a conference call to the claimant, employer, and witnesses at locations convenient to them (usually their homes and places of business). The third was the "office telephone hearing" in which the claimant, employer, and witnesses were assembled together at a local office for a conference call with the hearing officer who was at another location.

#### CONTACT PERSON

For additional information contact Bernard Streett,  
202-376-7110.

## Miscellaneous

Study Title: High Technology Employment, Massachusetts and Selected States  
1975 - 1979

Author: Helen B. Munzer, Director, Job Market Research

Date of Publication: March 1981

### Results:

High technology industries have a solid base in Massachusetts. In 1979 about one-third of all manufacturing employment was in high technology industries.

Gains in manufacturing employment in Massachusetts are centered in the high technology sector. Employment rose from 168,000 in 1975 to 222,000 in 1979 up over 32 percent.

Most spectacular gains were in the manufacture of office and computing machines and electronic components and accessories. Staffs in office and computing manufactures nearly doubled in the four years to 1979, followed by an advance of almost 65 percent in employment in electronic components and accessories.

Massachusetts' share of United States high technology employment is substantial and shows steady gain. Massachusetts' high technology share rose from 6.1 percent to 6.5 percent from 1975 to 1979 when manufacturing accounted for 3.2 percent and total insured employment 2.8 percent of United States employment.

Massachusetts compares favorably with other large industrial states. Massachusetts ranks number one in the proportion that high technology was of manufacturing in 1979 -- 33 percent. With the lowest in both population and total insured employment Massachusetts is fourth, behind California, New York and Illinois in high technology employment.

Wages in high technology industries are higher than those in manufacturing and significantly higher than those in total insured employment. Massachusetts high technology wages in 1979 average \$16,300 per year when such wages ranged from a high of 19,000 in Michigan to a low of 11,400 in Maine.

### Method Hypothesis

The purpose of this study is to evaluate Massachusetts' position in relation to other industrial states, in particular those that are potential alternative sites for the burgeoning high-technology facilities.

### Sampling Design

The Research Directors of the 24 states furnished the information on which a major portion of this report is based. They were selected because these states are frequently compared for site location purposes.

Arizona	Maryland	Ohio
California	Michigan	Pennsylvania
Connecticut	Minnesota	Rhode Island
Colorado	Nevada	Texas
Florida	New Hampshire	Utah
Georgia	New Jersey	Vermont
Illinois	New York	Virginia
Maine	North Carolina	Washington

A questionnaire was mailed to the 24 state agencies listed above requesting annual average employment and wage data for the calendar years 1975 through 1979 for all industries subject to state unemployment insurance laws including for profit and nonprofit, federal, state, and local governments, manufacturing industries, and an aggregate of the high-technology industries described above.

#### Data Sources

All data series are classified in accordance with the Standard Industrial Classification Manual, 1972 Edition. As a consistent series of employment and wage data was not available for all states prior to 1975, comparisons are limited to the years 1975-1979.

The employment and wage data ES-202 submitted by the states is a compilation of information from employers' unemployment insurance contribution reports submitted to state employment security agencies.

The source of employment data for the United States is the Current Employment Statistics program a joint effort of the cooperating states and the Bureau of Labor Statistics.

The U.S. data in the study are published in Employment and Earnings, United States 1909-1978 Bulletin 1312-11 and Supplement to Employment and Earnings, September 1980.

Both series exclude estimates of employment and earnings for the self-employed, and unpaid family worker groups.

#### Methods of Analysis

This analysis is based on employment and wages in high technology, manufacturing, and total employment.

#### Availability

Helen B. Munzer  
Director, Job Market Research  
Massachusetts Division of Employment Security  
Charles F. Hurley Building  
Government Center, Boston, MA 02114

Miscellaneous

Study Title: Job Openings Survey in Massachusetts, March through September 1979.

Authors: Job Market Staff, Massachusetts Division of Employment Security.

Date of Publication: December 1980

Results, Conclusions, and Policy Implications:

As a result of the Massachusetts experience in the Pilot Job Openings Survey (JOS), we find that fairly accurate and complete data on job vacancies can be obtained from employers in a cost-effective manner. Our average response rate in the first three survey rounds was well over 80 percent. The implementation of a nationwide federal-state cooperative program for the collection of job vacancy data appears to be both a feasible and worthwhile endeavor. There is no adequate substitute for current job vacancy statistics. Both help-wanted advertisement and orders filed with the Employment Security Job Bank system have a very limited range of coverage.

The results of the surveys thus far analyzed are of special significance to Massachusetts. The data tends to confirm our beliefs on the causes of the State's current economic vitality. Massachusetts employment is growing and the unemployment rate is running considerably below that of the nation. This is happening despite the movement of a few manufacturing firms out of the state, the energy crisis and the national recession. One of the explanations for this vitality is the rapid expansion of employment in a group of high technology industries, the proximity of these firms to institutions of higher learning and the availability of a fairly skilled work force. The outlook is for continued rapid growth in this sector. Even if the most conservative estimates of growth in the high-technology sector prove true, the current shortages among key engineering and technical personnel cannot afford to be ignored. Clearly, the need for documenting the type and intensity of occupational demand in this and several other segments of the state's economy such as the machinery and health-related fields are of vital importance for labor market planning and policy decisions.

An ongoing series of job vacancy data would be of great value in forecasting occupational needs and manpower shortages. It is a leading indicator of economic activity and the tightness of labor markets. Job vacancy data can be utilized to identify the types of unemployment, to more effectively target training and educational resources, to provide vocational guidance at all occupational levels, to assist workers in finding employment, to allow employers to improve their planning process, and to set a framework for the matching of job seekers with unmet employer needs.

Our experience with the JOS in Massachusetts has shown that estimates on the level and rate of current job openings by occupation can provide us with a measure of total unmet demand in specific occupational groups. We recommend a substantial increase in the sample size in order that significant changes from survey to survey can be analyzed.

In conjunction with some expansion of the sample size, we also recommend a major effort to obtain a supplementary up-to-date list of new firms from which to draw the sample. Such a list of newly created firms would reduce certain biases inherent in the current survey.

#### Data Sources

Job vacancy data in the first three rounds of the survey was collected by means of two basic schedules mailed to establishments, a long structured and short structured form. One of the objectives of the pilot Job Openings Survey was to test each type of schedule in combination with other variables such as method of collection and employment size of establishments.

The fundamental questions asked on each type of schedule was the number and classification of openings on the reference dates including part-time openings and openings unfilled for thirty days or more. In addition, the schedule asked for openings with future starting dates and the number of people employed in the pay period which includes the 12th day of the month.

#### Methodology

##### Sampling Design

The scope of the JOS survey includes all job vacancies that took place in Massachusetts on March 31, June 30, and September 30, 1979 within establishments in the sample frame. The base from which the sample was selected was the list of employers covered by the state Unemployment Insurance (UI) program for the first quarter of 1978. Units classified in SIC's for agriculture and private households, as well as all units in government, are excluded. A probability sample of about 1,200 establishments was selected from the UI files. The sample was stratified by industry, location and employment size. Replacement (shadow) units were also selected for use if the original establishment refused to participate in the survey, went out of business or would not otherwise produce useable data. Not all units, however, have shadows. Some are unique and some strata do not have a sufficient number of establishments to provide a replacement for all original units.

##### Methods of Analysis

Job vacancy rates were calculated by dividing the number of Job Openings by the sum of Employment and Job Openings (JV rate =  $\frac{JO}{E+JO}$ )

1979 Occupational employment was estimated as follows:

1. The 1976 CES survey-based matrix was used as a base figure for most occupational groups. (For a few occupational groups the 1976 census-based matrix was considered more reliable).
2. Occupational employment from the survey-based matrix was adjusted by three times the annual 1976-1985 growth rate from the Industry/Occupation projections program.
3. Census codes from the projections had to be converted to CES codes before the three-year percentage adjustment could be applied.
4. The estimated 1979 occupational employment was adjusted from CES codes to SOC codes to assure comparability with the JOS openings.

The sampling errors between surveys are too large to conclude that the change in job openings by occupation between quarters is significant. Also, there were a few inconsistencies in the data from one survey to the next (non sampling error) that further preclude a valid comparison of changes in job openings between surveys. Thus, the results of the three surveys were averaged into one. Data is only presented for the 40 out of 70 occupational job categories that met the designated publication criteria.

1. Average relative standard error less than 50%,
2. Relative standard error for at least two months under 50%,
3. Relative standard error for at least one month under 35%,
4. There was sufficient survey coverage for the occupational group.
5. If criteria 1-4 are met, but the relative standard error for any one month is 60 percent or over, an average of two surveys only was used for that occupational group.

The job openings include virtually all private nonagricultural wage and salary job openings, therefore they do not include job openings that exist in government or agriculture.

#### Availability

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